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FITZPATRICK CELLA HARPER & SCINTO  
30 ROCKEFELLER PLAZA  
NEW YORK, NY 10112

EXAMINER

LY, ANH VU H

ART UNIT PAPER NUMBER

2662

DATE MAILED: 07/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

*LM*

# Office Action Summary

Application No.

09/345,969

Applicant(s)

FROUIN, LAURENT

Examiner

Anh-Vu H Ly

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2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-200 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 113-131, 134, 160-174, 199 and 200 is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☒ Claim(s) See Continuation Sheet is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Continuation of Disposition of Claims: Claims rejected are 1-7,23-25,28,31,32,35-37,51-53,56,59,60-84,87-96,98-110,111,112,132-133, 135-136,138,139,141-148,150-159,175-177,179-182,184,185 and 188-198.

Continuation of Disposition of Claims: Claims objected to are 8-22,26,27,29,30,33,34,38-50,54,55,57,58,85,86,97,137,140,149,178,183,186 and 187.

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: the headings were not included in the specification to identify the field of invention, the background or related art of invention, summary of invention, and detailed description of the invention.

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if

the required "Sequence Listing" is not submitted as an electronic document on compact disc).

2. The abstract of the disclosure is objected to because at the bottom of the page, (Figure 12) stands by itself. Appropriate correction is required.

***Drawings***

3. The drawings are objected to because Figs. 2 and 10 lack descriptive legends. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-7, 23-25, 28, 31-32, 35-37, 51-53, 56, 59-60, 69-70, 71-84, 87- 96, 98-102, 111-112, 132-133, 135-136, 138-139, 141-148, 150-151, 175-177, 179-182, 184-185, 188-190, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertin et al (US Patent No. 6,400,681) in view of Bertin et al (US Patent No. 5,940,372).

With respect to claims 1, 31, 71, 87, 132, 175, US '681 discloses (col. 7, lines 30-44) that the network nodes provide ancillary services such as determination of routing paths, directory services like retrieving and updating information about network users and resources, maintaining of a consistent view of the physical network topology, including link utilization information, and reservation of resources at access points of the network.

Further, US '681 discloses (col. 9, line 32 – col. 10, line 3) that the Topology Database contains information about nodes, links, their properties, and the bandwidth allocation. The topology information is replicated in each node of the network. An algorithm guarantees the correctness of each node's Topology Database when links and nodes are added or deleted or when their characteristics change.

US '681 discloses (col. 11, lines 45-67) that the connection setup and bandwidth reservation process, as shown in Fig. 1, comprises the following steps: a Connection Request is specified by the user via a set of parameters including origin and destination network address, and data flow characteristics (bit rate, burstiness); a Path Selection process determines a path and a set of connection requests, one for each link of the path, using parameters provided by the Topology Database (memory resided in a node to store Topology Database); a Bandwidth Reservation process uses the connection requests to reserve bandwidth on each of the links of the path. This process involves exchange of information between the origin node, the transit nodes on the path, and the destination node; Bandwidth Reservation replies from transit nodes and end node generate either a call acceptance or a call reject; a Link metric Update process updates, in case of call acceptance, the modified link metrics. This information is sent through the Control Spanning Tree to the Topology Database of each node in the network by means of a broadcast algorithm (an information operation during which communication device broadcasts to all other communication devices in the network, an item of information representing the passband necessary for transmission in connected mode);

a Congestion Control Setup adjusts, if the call is accepted, the network connection characteristics.

US '681 discloses (col. 11, lines 12-15) that network connections can be classified as reserved or non-reserved. Reserved network connections require bandwidth to be allocated in advance along the chosen path.

US '681 does not disclose an operation of allocating a passband, on one hand, to the transmission in connected mode, and on other hand, all or part of the passband available to each transmission to be effected in non-connected mode.

US '372 discloses (col. 13, line 40 – col. 23, line 51) a method for allocating a channel in reserved and non-reserved modes (an operation of allocating a passband, on one hand, to the transmission in connected mode, and on other hand, all or part of the passband available to each transmission to be effected in non-connected mode).

Further, US '372 discloses (col. 14, lines 29-43) that because the data profile over the connections is bursty and non deterministic, reserved traffic does not lead to a full links utilization except on peaks. Therefore, non-reserved traffic can be transmitted when some bandwidth is available on the links (all or part of the passband available). The purpose of an efficient bandwidth management is to reserve on the links as much bandwidth as possible with a guaranteed quality of service, and to use the inherent remaining bandwidth to transport traffic from users who are expecting a "best effort" service.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to adopt a method for allocating a channel in reserved and non-

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reserved modes in US '681's system, as disclosed by US '372, to maximize bandwidth efficiency.

With respect to claims 2 and 32, the limitation "an operation of transmitting to each communication device placed on said path, referred to as "intermediate", an item of information representing the passband necessary for said connection" is addressed in the rejection of parent claim 1. Wherein, US '681 discloses that a Link metric Update process updates, in case of call acceptance, the modified link metrics. This information is sent through the Control Spanning Tree to the Topology Database of each node in the network by means of a broadcast algorithm.

Further, the limitation "effected by each intermediate communication device on said path, an operation of determining the availability of the link leading to the following communication device on said path, in the event of unavailability, an operation of transmitting to the source, an item of information representing the unavailability of said path" is addressed in the rejection of parent claim 1. Wherein, US '681 discloses that a Path Selection process determines a path and a set of connection requests, one for each link of the path, using parameters provided by the Topology Database; a Bandwidth Reservation process uses the connection requests to reserve bandwidth on each of the links of the path. This process involves exchange of information (an operation of determining the availability of the link) between the origin node, the transit nodes on the path (intermediate nodes), and the destination node; Bandwidth Reservation replies from transit nodes and end node generate either a call acceptance



or a call reject (an operation of transmitting to the source, an item of information representing the unavailability of said path).

With respect to claim 3, the limitation “for each transmission of information, a flow control operation performed by each of the intermediate communication devices on the path followed by said information” is implicitly addressed by the rejection of parent claim 1. Wherein, US ‘681 discloses that a Congestion Control Setup adjusts, if the call is accepted, the network connection characteristics (including source, destination, and transit nodes).

With respect to claims 4 and 82, US ‘681 discloses that a Congestion Control Setup adjusts the network connection characteristics once the call is accepted.

US ‘681 does not disclose that flow control operation is performed in accordance with IEEE 1355.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adopt a method of flow control operation in accordance with IEEE 1355 in US ‘681 systems, since IEEE 1355 is a well-known standard.

With respect to claims 5 and 35, limitations recited in claims 5 and 35, are addressed in the rejection of parent claims 1 and 31. Wherein, US ‘372 discloses a method for allocating a channel and transmitting information in a non-reserved mode.

With respect to claims 6 and 36, the limitation "an information transmission operation taking several priority levels into account" is addressed in the rejection of parent claim 1. Wherein, US '681 discloses that a Connection Request is specified by the user via a set of parameters including origin and destination network address, and data flow characteristics (bit rate, burstiness) (priority levels).

With respect to claims 7 and 37, US '681 discloses a method for minimizing the connection setup time in high-speed packet switching networks.

US '681 does not disclose that a priority level is allocated to transmission in non-connected mode.

US '372 discloses (col. 14, lines 23-26) that the lowest delay priority (a priority level) is assigned to non-reserved traffic and the networks drop non-reserved packets when their buffer overflow at intermediate links.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a method of assigning lowest delay priority to non-reserved traffic in US '681's system, as disclosed by US '372, since path transfer delay and loss probability are not part of the quality of service guaranteed to non-reserved connections.

With respect to claims 23 and 51, US '681 discloses a method for minimizing the connection setup time in high-speed packet switching networks.

US '681 does not disclose that real-time traffic, predictive or guaranteed, is transmitted in connected mode.

However, real-time traffic transmitted in a connected mode is well known in the art, such as voice transmission, wherein, high transfer delay is not accepted.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to transmit real-time traffic in connected mode in US '681 system, since high transfer delay is not accepted.

With respect to claims 24 and 52, US '681 discloses a method for minimizing the connection setup time in high-speed packet switching networks.

US '681 does not disclose that elastic traffic is transmitted in non-connected mode.

However, elastic traffic transmitted in non-connected mode is well known in the art, such as data downloading from Internet, wherein no bandwidth or channel is setup for transmission between server and client.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to transmit elastic traffic in non-connected mode in US '681 system, since elastic traffic can adapt to changes in transmission conditions.

With respect to claims 25, 53, 78, and 94, the limitation recited in claims 25, 53, 78, and 94 is addressed in the rejection of parent claims 1, 31, and 71. Wherein, US '681 discloses that a Bandwidth Reservation process uses the connection requests to

reserve bandwidth on each of the links of the path. This process involves exchange of information between the origin node, the transit nodes on the path (checking operation), and the destination node; Bandwidth Reservation replies from transit nodes and end node generate either a call acceptance or a call reject.

With respect to claims 28, 150, and 190, US '681 discloses a method for establishing a connection and bandwidth reservation process in high-speed packet switching networks (each communication device effects each information transmission by packet switching).

With respect to claim 56, US '681 discloses (col. 7, lines 49-53) that the interpretation of the users protocols, the translation of the users data into packets formatted appropriately for their transmission on the packet network and the generation of a header to route these packets are executed by an Access Agent running in the Port (each communication device is adapted to implement a protocol for the transmission of information by packet switching).

With respect to claims 59 and 89, US '681 discloses that a Path Selection process determines a path and a set of connection requests, one for each link of the path, using parameters provided by the Topology Database. There must be a memory for storing Topology Database in each node (a memory adapted to store a load table containing information relating to the load on each link in the network).

All other limitations recited in claim 59 are addressed in the rejection of parent claim 31.

With respect to claim 60, the limitations recited in claim 60 are addressed in the rejection of parent claim 31.

With respect to claims 69 and 111, the limitation "an information storage means which can be read by a computer or a microprocessor storing instructions of a computer program, characterized in that it allows the implementation of a communication method" is implicitly addressed by US '681. Wherein, US '681 discloses a connection setup and bandwidth reservation process for connected connection. In order to carry out such connection setup and bandwidth reservation process, the source node must be instructed to implement such process by a program stored in its local memory.

With respect to claims 70 and 112, US '681 discloses a method for minimizing the connection setup time in high-speed packet switching networks.

US '681 does not disclose an information storage means which is removable, partially or totally.

However, an information storage means, which is removable, partially, or totally is well known in the art, such as zip drive, which is removable.

Further, the limitation “and which can be read by a computer or a microprocessor storing instructions of a computer program, characterized in that it allows the implementation of a communication method” is implicitly addressed by US ‘681.

Wherein, US ‘681 discloses a connection setup and bandwidth reservation process for connected connection. In order to carry out such connection setup and bandwidth reservation process, the source node must be instructed to implement such process by a program stored in its local memory.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a removable storage means for storing instructions of a computer program in US ‘681, since removable storage means are flexible to carry around.

With respect to claims 72-77, 79-81, and 83, the limitations recited in claims 72-77, 79-81, and 83 are addressed in the rejection of parent claim 71.

With respect to claims 84 and 100, US ‘681 discloses that a Link metric Update process updates, in case of call acceptance, the modified link metrics. This information is sent through the Control Spanning Tree to the Topology Database of each node in the network by means of a broadcast algorithm (communication devices in the network and for each communication device in the network which is not on the path to be reserved, an operation of updating a load table).

With respect to claims 88, 90-93, 95-96, 99, 101-102, the limitations recited in claims 88, 90-93, 95-96, 99, and 101-102 are addressed in the rejection of parent claim 87.

With respect to claim 98, US '681 discloses a method for bandwidth reservation.

US '681 does not disclose that transmission means is adapted to implement with IEEE 1355 communication protocol.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adopt a method of transmission in accordance with IEEE 1355 communication protocol in US '681 systems, since IEEE 1355 is a well-known standard.

With respect to claims 133-136, 138-139, 141-148, and 151, the limitations recited in claims 133-136, 138-139, 141-148, and 151 are addressed in the rejection of parent claim 132.

With respect to claims 176-177, 179-182, 184-185, 188-189, the limitations recited in claims 176-177, 179-182, 184-185, 188-189 are addressed in the rejection of parent claim 175.

5. Claims 61-68, 103-110, 152-159, 191-198 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bertin et al (US Patent No. 6,400,681) in view of Ogino et al (US Patent No. 6,038,625). Hereinafter, referred to as Bertin and Ogino.

With respect to claims 61-68, 103-110, 152-159, and 191-198, Bertin discloses a method for minimizing the connection setup time in high-speed packet switching networks.

Bertin does not disclose a computer, a camera, facsimile machine, a television receiver, a printer, a scanner, an audio/video reader, characterizes in that it has a communication device according to claim 31.

Ogino discloses in Fig. 1 that several consumer electronics products, e.g., television, VCR, tuner, set-top box, DVTRs, PCs, DVD players, etc., can be coupled within the network to communicate together via a standard bus, e.g., IEEE 1394 serial communication bus.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine, adapt and include the teachings of Bertin's and Ogino's, bandwidth reservation process in high-speed packet switching networks, in the consumer electronics products, which coupled together via IEEE 1394 serial communication bus, for connecting and reserving bandwidth for communications between devices.

***Allowable Subject Matter***



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6. Claims 8-22, 26-27, 29-30, 33-34, 38-50, 54-55, 57-58, 85-86, 97, 137, 140, 149, 178, 183, 186-187 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. Claims 113-131, 134, 160-174, 199, and 200 are allowed.

The following is an examiner's statement of reasons for allowance:

The admitted prior art does not teach or fairly suggest a method of communicating on a network, characterized in that it includes, for establishing a connection: A. performed by a communication device which is a source of information to be transmitted in connected mode, an operation of determining a passband requirement for transmission of said information in connected mode; an operation of determining any path available for said transmission according to information stored in a load table for each link in the network; and when an available path is determined, an operation of transmitting an item of information representing said passband requirement to the following communication device on said path and an operation of updating said load table for the links in the network, an operation of broadcasting, to at least all the communication devices outside the path, an item of information representing said passband requirement; B. performed by each intermediate communication device on said path, an operation of determining the availability of said path for said communication, according to information stored in a load table for each link in the network; and when the path is available, an operation of transmitting an item of information representing said passband requirement to the following communication device on said path, and an operation of updating said load table for the links in the network; C. performed by each communication device outside said path, an operation of updating a load table for the links in the network, as specified in the independent claim 113.

The admitted prior art does not teach or fairly suggest a method of communicating on a network, between communication devices each able to determine the path to be followed by each item of information which it has to transmit, characterized in that it includes: performed by each so-called "source" communication device which requires a connection associated with a path, in order to effect a transmission of information to a destination communication device, an operation requesting a connection, during which the source communication device transmits, to each communication device on said path, a request to establish a connection, when

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establishment of said connection is possible, performed by at least the destination communication device, an operation of transmitting, to the source communication device, a connection acceptance; performed by the source communication device, an operation of broadcasting, to all the communication devices in the network, an item of information representing the establishment of the connection; performed by each communication device on said path, on reception of said information representing the establishment of a connection, an operation of confirming the establishment of said connection; and performed by each communication device outside said path, on reception of said information representing the establishment of a connection, an operation of storing in memory an item of information representing said connection, as specified in the independent claim 162.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Humpleman (US Patent No. 6,005,861) discloses home multimedia network architecture.

Qiu et al (US Patent No. 5,615,254) discloses methods and system for dynamic routing in a switched communication network.

Hou et al (US Patent No. 6,324,184) discloses a dynamic bandwidth allocation method in a communication network.

Sato et al (US Patent No. 5,828,656) discloses a method of controlling communications, and electronic device.

Lee et al (US Patent No. 5,991,831) discloses a high-speed serial communications link for desktop computer peripherals.

Fujimori et al (US Patent No. 6,108,718) discloses a communication method and electronic apparatus using an IEEE 1394 serial bus.

Walker et al (US Patent No. 6,278,709) discloses a technique for routing messages.

Bertin et al (US Patent No. 6,011,804) discloses a dynamic bandwidth reservation for control traffic in high-speed packet switching networks.

Spiegel et al (US Patent No. 5,649,108) discloses a combined progressive and source routing control for connection-oriented communications networks.

Gun (US Patent No. 5,347,511) discloses a traffic management in packet communications networks.

Yoshimura et al (US Patent No. 6,125,397) discloses a data transfer apparatus and method using congestion recovery-type and congestion avoidance-type data transfers.

Woest et al (US Patent No. 5,243,595) discloses a combined connectionless and connection-oriented network control system.

Iijima et al (US Patent No. 5,689,244) discloses a method of controlling communication for a communication system for connecting a plurality of electronic apparatus through a communication control bus.

Schwager et al (US Patent No. 6,252,886) discloses a method for implementing bandwidth reservation in an electronic network.

Wooten (US Patent No. 5,621,898) discloses a serial bus host controller which organizes data transfer events into categories.

Shea, T.J. et al "Evaluation of IEEE 1394 Serial Bus for Distributed Data Acquisition" Particle Accelerator Conference, 12-16 May 1997, Vol. 2, pages 2502-2504.

Breevoort, C.M. "A Multi-Services Communication Architecture For In-Home USB and IEEE-1394 Based Devices" Consumer Electronics, June 2-4, 1998, pages 110-111.

Tan, Yasuo "Scaling Up a IEEE 1394 DV Network to an Enterprise Video LAN with ATM Technology" Consumer Electronics, June 2-4, 1998, pages 112-113.


Severance, C. "Linking Computers and Consumer Electronics" Computer,  
February 1997, Vol. 30, Issue 2, pages 119-121.

Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to Anh-Vu H Ly whose telephone number is 703-306-5675.  
The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone numbers  
for the organization where this application or proceeding is assigned are 703-872-9314  
for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or  
proceeding should be directed to the receptionist whose telephone number is 703-305-  
4750.

av  
July 9, 2002



HASSAN KIZOU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600